

ABSTRACT OF THE DISCLOSURE

A turbine vane assembly includes a turbine vane having first and second shrouds with an elongated airfoil extending between. Each end of the airfoil transitions into a shroud at a respective junction. Each of the shrouds has a plurality of cooling passages, and the airfoil has a plurality of cooling passages extending between the first and second shrouds. A substantially flat inner plate and an outer plate are coupled to each of the first and second shrouds so as to form inner and outer plenums. Each inner plenum is defined between at least the junction and the substantially flat inner plate; each outer plenum is defined between at least the substantially flat inner plate and the outer plate. Each inner plenum is in fluid communication with a respective outer plenum through at least one of the cooling passages in the respective shroud.